



Channel Islands National Marine Sanctuary

Sanctuary Superintendent's Report

Volume 4, Number 1



A report for the Sanctuary Advisory Council and Sanctuary Constituents

Reporting period: December 31, 2005 to February 24, 2006

ABOUT THE SANCTUARY

Designated in 1980, the Channel Islands National Marine Sanctuary (CINMS or sanctuary) consists of an area off the coast of California of approximately 1,252.5 square nautical miles adjacent to the following islands and offshore rocks: San Miguel Island, Santa Cruz Island, Santa Rosa Island, Anacapa Island, Santa Barbara Island, Richardson Rock, and Castle Rock, extending seaward to a distance of six nautical miles. The islands vary in distance from 12 to 40 nautical miles offshore from Santa Barbara and Ventura counties in southern California.

A fertile combination of warm and cool currents in this area results in a great variety of plants and animals including kelp forests, fish and invertebrates, pinnipeds, cetaceans and sea birds. The sanctuary also has a wealth of maritime heritage resources including Chumash Native American artifacts and over 100 historic shipwrecks. Human uses in the area include commercial and recreational fishing, marine wildlife viewing, boating, diving, kayaking, maritime shipping, nearby offshore oil and gas development, research and monitoring, and numerous educational activities.

MERITO Educator Workshop

CINMS has partnered with the Channel Islands Marine Resources Institute and the Oxnard College Marine Education Center to provide professional development opportunities to Hispanic serving teachers and after-school program leaders through a MERITO Educators Workshop. The target audience of the workshop, which is scheduled for August 19-20, is 5th – 7th grade teachers. The workshop goal is to provide high quality, sustainable science programming that integrates watershed and ocean science into public education and extended learning programs, ultimately resulting in educated and engaged youth actively contributing to ocean protection. This goal will be achieved by providing Ventura and Santa Barbara county educators with the training and resources needed to implement the MERITO Activity Guide in their classroom and after-school programs. For more information contact: Rocío Lozano de Knowlton Rocio.Lozano@noaa.gov.

EDUCATION AND OUTREACH

Multicultural Education for Resource Issues Threatening Oceans (MERITO)

Outreach for Hispanic Adult Students and Migrant Parents

Rocío Lozano de Knowlton, MERITO Bilingual Community Liaison for the Channel Islands National Marine Sanctuary (CINMS or sanctuary), is currently establishing collaborations with Hispanic, adult-serving community groups, and English as a Second Language (ESL) programs in Santa Barbara, Ventura, and Oxnard to provide a field-tested lesson plan to their students. The goal of this program is to increase student and migrant parent knowledge of marine resources and watershed protection issues, while strengthening sanctuary stewardship. MERITO adult programming will be initiated in April 2006 and will target city run adult ESL schools, English language civics, computer technology programs, and migrant parent meetings. The lesson plan is provided in English or Spanish by bilingual CINMS MERITO staff, and includes a Power Point presentation on priority issues, demonstrations using a watershed model, and a felt kelp model. A limited number of adult students will also participate in field trips to the Channel Islands in May and October aboard the sanctuary's research vessel (R/V) *Shearwater*.

Window on the Sanctuary

Dolphins bow hop in front of the Sanctuary's R/V *Shearwater* during a December 2005 excursion for filming of "America's Underwater Treasures" by the Ocean Futures Society. Photo: Karen Keltner.



Special Events

2006 From Shore To Sea Lecture Series

CINMS and Channel Islands National Park (CINP or park) are co-sponsors of the 2006 From Shore To Sea Lecture Series featuring various experts in the cultural and natural history, island ecology, geology, and biology of the Channel Islands and Santa Barbara Channel. The featured speaker in February was Betsy Lester Roberti, who gave a fascinating talk on her life growing up on San Miguel Island. You can see artifacts from the Lester family's former San Miguel Island home at the Santa Barbara Maritime Museum! The featured speaker for March is Greg Sanders, a biologist with the U.S. Fish and Wildlife Service who will be discussing the status of the southern sea otter translocation program. The monthly lectures are free and open to the public and take place at 7 PM. The Tuesday dates are held in Santa Barbara at the Chase Palm Park Building (236 E. Cabrillo Blvd.), and the Wednesday dates in Ventura at the Robert J. Lagomarsino Visitor Center (1901 Spinnaker Drive in Ventura Harbor). The current lecture schedule is posted in the box (above). For more information, including future postings about May through December lectures please visit: www.channelislands.noaa.gov/focus/calendar.html.

2006 From Shore to Sea Lecture Series

Recent and Upcoming Lectures

Dates	Speaker(s)
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Mar. 14, 15	Greg Sanders, U.S. Fish and Wildlife Service, Southern Sea Otter Translocation Status
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Apr. 11, 12	Josh Adams, U.S. Geological Survey, Seabirds of the Channel Islands and Santa Barbara Channel
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Santa Barbara Lectures (Tuesdays)

7 pm at Chase Palm Park Center, 236 E. Cabrillo Blvd., Santa Barbara

Ventura Lectures (Wednesdays)

7 pm at Channel Islands National Park, Robert J. Lagomarsino Visitor Center,
1901 Spinnaker Drive, Ventura

More information including speaker topics and the May through December lecture schedule will be posted at:

<http://www.channelislands.noaa.gov/focus/calendar.html>

Channel Islands Live! Telepresence

On February 22nd CINMS staff attended a demonstration of a live broadcast from Anacapa Island to the park visitor center using microwave technology provided by Dragonwave. The broadcast (called Channel Islands Live!), featured topside tours of Anacapa Island for the park visitor center audience. The Ventura County Office of Education is currently developing its communication network to link all of the schools in its districts using high-speed wireless Internet connectivity, which once completed will facilitate school participation in programs such as Channel Islands Live! By featuring the *JASON XIV From Shore To Sea* curriculum, the Channel Islands Live! program will provide classroom students with opportunities to participate in an underwater hike through the kelp forests of Anacapa Island, and learn about some of the research, monitoring, and resource protection measures in place to protect them. The next step is to connect all students nationwide and the American public to this resource through Telepresence. CINMS education staff are working to secure funding through the National Oceanic and Atmospheric Administration's (NOAA) internal education mini-grant program to expand programming through the National Marine Sanctuaries Ocean Live! Web Portal. This project is a partnership between the Ventura County Office of Education, the Santa Barbara County Education office, Santa Barbara Maritime Museum, and the park and sanctuary. For more information contact Julie.Bursek@noaa.gov.

Cabrillo High School Remotely Operated Vehicle (ROV) Cruise Aboard R/V Shearwater

On February 22nd, thirty students and teachers from Cabrillo High School participated in a ROV cruise aboard the R/V *Shearwater* to learn more about how ROVs are used in marine reserve research and monitoring. Participating students tested their classroom-built PVC ROVs in the ocean environment. Charles Lara, R/V *Shearwater* first mate, provided students with an opportunity to work with the SeaBotix ROV to test their ability to follow an underwater transect and collect data on macroflora and macrofauna observed through the camera lens of the ROV. Students also conducted water quality testing and collected plankton as part of the cruise. For more information contact Julie.Bursek@noaa.gov.



Students collect datum points from a mock shipwreck.
Photo: Claire Johnson, NOAA.

JASON Expedition: Mysteries of Earth and Mars Live Broadcasts at the Santa Barbara Maritime Museum

CINMS coordinated two activities in support of the *JASON Expedition: Mysteries of Earth and Mars* live broadcasts at the Santa Barbara Maritime Museum from January 30th through February 3rd. The first activity focused on offshore monitoring using ROVs and submersible technologies. This activity was originally developed for the Long Term Monitoring Program and Experiential Training for Students (LiMPETS) by Cordell Bank National Marine Sanctuary. The second activity, developed by Thunder Bay National Marine Sanctuary, focused on maritime archaeology monitoring techniques and underwater communications using a mock shipwreck. Over 1,500 students participated in the JASON live broadcasts at the Santa Barbara Maritime Museum.



A sample Mars Rover gets test-driven over middle school students at the Santa Barbara Maritime Museum. Photo: Claire Johnson, NOAA.

Workshops

My World Geographic Information Systems (GIS) Workshop

On January 22nd and 23rd Laura Francis participated in a My World GIS curriculum developers workshop hosted by the Geographic Data in Education initiative at Northwestern University. My World GIS has been developed through a research effort funded by the National Science Foundation to provide educators with a GIS designed specifically for use in educational settings from middle school through college. My World offers the features of a professional GIS through an interface that provides support for students and teachers. In addition, it has been built to be compatible with school computing infrastructures. The design of My World GIS has been informed by more than a decade of classroom and laboratory research and input from experienced GIS educators. The goal of this workshop was to bring together individuals who are interested in developing GIS-based activities, data libraries, or professional development using My World.

National Oceanic and Atmospheric Administration (NOAA) Grants Workshop

Laura Francis participated in the NOAA grants.gov and grants online management workshop in Seattle, Washington on February 14th and 15th. The training included information about NOAA's grants business process re-engineering, the pre-award process, streamlining federal grants, NOAA Cooperative Institutes, monitoring and closeout, audits, and grants and the National Environmental Policy Act (NEPA) process.

B-WET Grant Writing Workshop

CINMS Education Coordinators Laura Francis and Julie Bursek participated in the National Marine Sanctuary Program's (NMSP) B-WET grant writing workshop on January 20th in Santa Barbara. On the same day, Congresswoman Lois Capps and CINMS staff held a press conference at the Ty Warner Sea Center in Santa Barbara to highlight the B-WET grant announcement. Thirty-five participants from the marine education community in Santa Barbara and Ventura counties participated in the workshop. The B-WET Program has announced that up to \$350,000 in funds is available this fiscal year to implement environmental education projects in Santa Barbara and Ventura counties in the following two priority areas: 1) Meaningful Outdoor Experience; and 2) Professional Development in the area of Environmental Education for Teachers. A Full Funding Opportunity announcement was posted at the grants.gov website and proposals were due on February 21st. This is the first federally supported grant program to focus solely on Santa Barbara Channel watersheds (including Santa Barbara and Ventura counties). Funding is available to K-12 public and independent schools

and school systems, institutions of higher education, commercial and nonprofit organizations, state or local government agencies, and Indian tribal governments. The Santa Barbara and Ventura B-WET Program will allow teachers to use the living classroom environment and the sanctuary to teach about the value of the coastal environment and the connection between the land and sea. For more information about the B-WET grant opportunity please contact Seaberry.Nachbar@noaa.gov.

Meetings

National Marine Sanctuary Program Annual Education Meeting

CINMS Education Coordinators Julie Bursek and Laura Francis will attend the National Marine Sanctuary Program Annual Education Meeting in Monterey Bay from March 13-16. The meeting will include breakout sessions to develop the ten-year NMSP Education Strategic Plan, to develop the vision and goals for regional education priorities, and to develop national marine sanctuary messaging for ocean literacy principles. Bursek and Francis will be reporting on CINMS programming as it relates to fiscal year 2006 budget allocations.

Ocean Science Education Building Development Meetings

On January 4th Laura Francis, CINMS Education Coordinator, and Todd Jacobs, CINMS Deputy Superintendent, participated in an eco-charette for the planned Ocean Science Education Building (OSEB) at the University of California Santa Barbara (UCSB). The new building will house the CINMS administrative offices and an Outreach Center for Teaching Ocean Science (OCTOS). The eco-charette brought together all of the participants in the building design process to focus on ideas for efficient use of energy and resources in the new building. The goal is for the building to achieve a Leadership in Energy and Environmental Design (LEED) gold rating.

On January 19th Laura Francis and Todd Jacobs participated in the second of three building committee meetings planned for the schematic design phase of the OSEB.



A conceptual sketch for the environmental simulator: a proposed OCTOS exhibit. Image courtesy Thinc Design.



Congresswoman Lois Capps and CINMS Superintendent Chris Mobley interact with McKinley Elementary School students at the invertebrate touch tank before the B-WET Press Conference. Photo: Claire Johnson, NOAA.

On January 20th, Laura Francis and Ali Whitmer, Education Director for UCSB's Marine Science Institute, coordinated a stakeholder workshop for representatives from the marine education community in Santa Barbara and Ventura counties to provide input and ideas related to the initial exhibit concepts for OCTOS. Thinc Design, the exhibit design firm hired for the project, facilitated the workshop that was attended by fifteen representatives of the Superintendent of Schools for Santa Barbara and Ventura counties, Santa Barbara City College, Santa Barbara Maritime Museum, the Santa Barbara Museum of Natural History Ty Warner Sea Center, The Ocean Channel, CINP, and other area education organizations.

Channel Islands National Marine Sanctuary and National Park

A Nourishing Environment

The waters surrounding the Channel Islands provide a natural habitat for an incomparably rich and diverse community of marine life. The mixing of cold waters from the North Pacific with warmer currents from Baja California results in flourishing populations of fishes and invertebrates, large forests of giant kelp, and abundant populations of whales, dolphins, seals, sea lions and seabirds. These pristine waters are susceptible to human impacts of pollution, over-harvesting, and changing environmental conditions. What can you do to help ensure that this special ocean environment remains healthy?

Channel Islands waters are home to 25 species of sharks. Some shark species such as the blue shark are year round residents, while others migrate seasonally through sanctuary waters.

Like forests on land, kelp forests provide living space for thousands of species of marine life.

The most diverse and largest rookeries of seals and sea lions in the world rely on the isolation, protection and rich food resources of the Channel Islands.

The Channel Islands harbor almost half of the world's population of a small nocturnal species of seabird called the Laysan Murrelet.

One-third (or 28) of the world's species of dolphins and whales rely upon the abundant waters of the sanctuary and park.

12 species of seabirds breed on the Channel Islands and more than 60 species feed in the park and sanctuary.

Un Ambiente Nutritivo

Las aguas que rodean las islas Channel Islands proveen un hábitat natural para una comunidad de vida marina incomparablemente rica y diversa. La mezcla de aguas frías del norte con aguas calientes del sur resulta en prosperas poblaciones de peces e invertebrados, bosques de macro algas, ballenas, delfines, lobos marinos, focas y aves marinas. Estas aguas prístinas son susceptibles a los impactos humanos de contaminación, sobre-explotación y cambios en las condiciones ambientales. ¿Que puede hacer UD. para asegurar que este ambiente oceánico permanezca saludable?

Créditos de las Fotografías

Tiburones
Las islas Channel Islands son el hogar de 25 especies de tiburones. Algunas especies como el tiburón azul son residentes todo el año, mientras otros migran por temporadas.

Los Bosques de Macro-Algas
Los bosques de macro-algas proveen hábitat para miles de especies marinas.

Lobos Marinos
Cuatro especies de focas y lobos marinos se reproducen en las islas (las focas comen y del norte).

Del Pato Nocturno
Las islas Channel Islands albergan a casi la mitad de la población mundial del pato nocturno.

Ballenas y Delfines
Un tercio de las especies de ballenas y delfines del mundo dependen de las aguas del santuario y el parque.

California Signage Plan

Laura Francis participated in a California Signage Plan meeting on February 9th. Francis is coordinating the development of boat launch ramp signs for Santa Barbara, Ventura, and Channel Islands Harbors, three signs for the Santa Barbara Zoo, and signs for the CINP visitor center in Ventura, California. (Above is an example draft sanctuary sign being developed for the Santa Barbara Zoo.)

Channel Islands Naturalist Corps (CINC) Volunteer Program

January and February Whale Watch Vessel Excursions

CINC volunteers have been offering gray whale interpretation to passengers on the *Condor Express*, *Double Dolphin*, and *Rachel G* (Santa Barbara Harbor), *Island Packers* (Ventura Harbor), and the *Speed Twin* and *Ranger 85* (Channel Islands Harbor). Sightings for the first half of February included regular encounters with orcas.

January and February Island Programs

During January, six volunteers conducted six formal interpretive hikes on Anacapa and Santa Cruz islands, and two volunteers accompanied staff from Island Packers as they led the Prisoners Harbor to Pelican Bay hike on The Nature Conservancy's portion of Santa Cruz Island. In February, four volunteers led seven formal interpretive hikes on Anacapa and Santa Cruz islands, while one volunteer accompanied Island Packers staff for the Prisoners Harbor to Pelican Bay hike. Island Packers has curtailed trips to Scorpion Anchorage at Santa Cruz Island due to park management activities at the east end of the island. CINC volunteers will no longer offer support on the Prisoners Harbor to Pelican Bay as of March 21st.

2006 Training for New CINC Volunteers

Training for 41 new volunteers began January 10th and ran through February 4th, and concluded with a naturalist exam, followed by a graduation and potluck lunch. CINMS Superintendent Chris Mobley and CINP Superintendent Russell Galipeau both spoke to the trainees, welcoming and thanking them for their involvement. The month-long training schedule included presentations on: the park and sanctuary, marine mammals, oceanography, geology, archeology and

ethnohistory, whale watch procedures for vessels in Santa Barbara and Ventura counties, and interpretation techniques. A complete training schedule with more information was provided in the last report (Vol. 3, No. 6, p. 7).

February 21st CINC Monthly Meeting

Monthly meetings for the CINC run from February through September on the third Tuesday of each month. On February 21st, Eric Boldt from NOAA's National Weather Service spoke of weather forecasting and hindcasting in the region, and illustrated how he and his colleagues will use incidental weather data that the CINC volunteers record on whale watch trips.

CINC Member Recognition

CINC Volunteer Nominated for National Volunteer of the Year Award: Warren Glaser has been nominated by CINMS for consideration to receive the National Marine Sanctuary Foundation's 2005 Volunteer of the Year Award. Glaser has made the sanctuary program his passion. In 2005 he was instrumental to CINMS outreach programs, making it possible for us to attend over 30 community outreach events. His participation included training volunteers in outreach procedures, developing an outreach procedure manual, transporting exhibits, and developing unique educational activities. It is certain that the level of outreach CINMS was able to achieve last year was in large part due to Glaser. In addition, he has served as a member of the Sanctuary Advisory Council since 2005. Representing non-consumptive recreational interests, Glaser brings his deep knowledge of kayaking, diving, and other pursuits to the task of providing advice to the Sanctuary Superintendent. Always one to listen to others, Glaser has been conducting extensive outreach to the recreational community in his quest to provide the best management advice possible. He also endorses and supports collaboration among other agencies, including the CINP/National Park Service. Last year he received the CINC Volunteer of the Year Award and he is more than worthy of being recognized on a national level. A final selection will be made this spring and the honoree will be recognized at a special ceremony in Washington, D.C. in June.

CINC Volunteer Awarded 2005 Yachtswoman Excellence Award: Ventura County reporter Catherine French has been named as the recipient of the 2005 Yachtswoman Excellence Award. Each year, the Yacht Racing Union of Southern California, which represents 31 yacht clubs, names a male and a female sailor to receive the Yachtsman/Yachtswoman Excellence Award. French exemplifies the finest traditions of the sport of sailing with her Corinthian spirit, and community outreach through the CINC. As a CINC volunteer French is certified to provide natural interpretation aboard whale watching vessels, as well as lead hikes on the four northern Channel Islands. In addition to on-the-water and island volunteer work, she spends many hours supporting the sport of sailing at Pacific Corinthian Yacht Club. French writes a regular racing column for *The Log* and covers local news for the publication, as well. Articles by French about whale watching and boating in the Santa Barbara Channel have also been published in *Sea Magazine*, the *Ventura County Star*, and *Alolkoy* (the CINMS newsletter).

CINC Research Assistance (please see Research and Monitoring on. p. 10)

Public Outreach

1/30/06-2/3/06, *JASON Expedition: The Mysteries of Earth and Mars*: Eleven members of the CINC trained to support the annual JASON Project this winter, as it broadcast to visiting school children at the Santa Barbara Maritime Museum. CINC volunteers operated ROV equipment to show its use for shipwreck exploration, while other volunteers operated an ROV that is used in space. It was an exciting week of hands-on learning for hundreds of local students.

2/18/06, Ventura County Maritime Museum Anniversary: Three CINC volunteers staffed an information table at the 15th anniversary of the Ventura County Maritime Museum and distributed flyers on cultural heritage for the NMSP. Public attendance was low.

2/23/06, School Science Fairs: CINC volunteer Debra Herring represented CINMS and CINP at the Alisos Elementary School annual science fair in Carpinteria, while Clare Fritzsche (CINC Volunteer Administrative Assistant) attended the



science fair at El Camino School in Goleta. Both focused on hands-on interactions with the students about marine and terrestrial animals of the Channel Islands.

2/26/06, Steelhead Festival: CINC volunteer Debbie Shelley represented CINMS and CINP at the Steelhead Festival at the Santa Barbara Zoo, providing outreach and distributing "Protecting Your Channel Islands" brochures at the NOAA Fisheries booth.

3/3/06, California Marine Mammal Stranding Network Conference: CINC volunteer Josh Kaye-Carr gave a presentation on CINC volunteer monitoring and research efforts at the California Marine Mammal Stranding Network Conference, which was held at the Cabrillo Marine Aquarium in San Pedro. Kaye-Carr presented information on the CINC volunteer whale photo identification program that supports the Cascadia Research Collective. Kaye-Carr also highlighted the sanctuary's online Marine Mammal Sightings Database, which contains data from CINC marine mammal sightings reports.

3/4/06-5/29/06, Island Passages: Artists Celebrate the Channel Islands:

The Islands Passages exhibit will be on display at the Ventura County Museum of History & Art March 4 - May 29, 2006. The featured artwork celebrates the beauty of the park and sanctuary with approaches as diverse as the islands. Photographs, paintings, and sculptures, inspired by twelve months of trips to the park and sanctuary explore unique features of San Miguel, Santa Rosa, Santa Cruz, Anacapa, and Santa Barbara islands. Amy Cale, CINMS Web Developer, was one of the artist selection jurors and Shauna Bingham, CINMS Volunteer and Outreach Coordinator, supported park and museum staff with outreach event planning for the exhibit. An opening reception was held on Friday, March 3rd. The museum will host an art sale and a variety of events to raise community awareness about the Channel Islands. See the sanctuary outreach calendar for further details.

Education and Outreach Staff Update

Two of our sanctuary moms have recently rejoined our team. After four months of maternity leave Rocío Lozano de Knowlton returned to work on January 20th to launch the implementation of the MERITO program. Lozano de Knowlton and spouse Jim Knowlton (CINMS Sanctuary Advisory Council representative) have a healthy baby boy named Santiago Azul. After a leave of absence Tina Reed has been hired contractually to provide part-time administrative support to the sanctuary's Channel Islands Harbor office. Reed and husband David have a darling new daughter named Emma. Welcome back and congratulations!

MARITIME HERITAGE PROGRAM

Education and Outreach

Robert Schwemmer, CINMS and West Coast Region Maritime Heritage Program Coordinator, and Amy Cale CINMS Web Developer, are working on redesigning the West Coast Shipwreck online curriculum to assist students, teachers and researchers in more easily navigating through the database, and to complete position coordinates for GIS students. The West Coast Shipwreck online curriculum is available at: <http://www.cinms.nos.noaa.gov/shipwreck/shiphome.html>.

Resource Protection

Schwemmer continues to provide research support to Michael Overfield, who is developing the NOAA Resources and Under Sea Threats (RUST) database that includes shipwrecks that may pose environmental threats to marine resources.



Regional Maritime Heritage Program

In January, Schwemmer attended the Society for Historical Archaeology conference in Sacramento, California where he presented a paper on three California Gold Rush passenger steamers shipwrecked in 1853 and now located in three California national marine sanctuaries. The remains of the *Tennessee* are located in the Monterey Bay National Marine Sanctuary, where coastal land features still carry the ship's name. In the Gulf of The Farallones National Marine Sanctuary, the wreck site of the *S.S. Lewis* provides archaeologists with an opportunity to document one of California's earliest propeller driven steamers. *Winfield Scott* is located in CINMS and is one of the few shipwrecks from the Gold Rush period that wrecked on its way to Panama. Schwemmer presented results from historical research and archaeological site investigations being conducted by NOAA's Maritime Heritage Program and its partners.

For more information visit these web sites:

S. S. Lewis: <http://www.channelislands.noaa.gov/shipwreck/dbase/gfmns/sslewis.html>

Winfield Scott: <http://www.cinms.nos.noaa.gov/shipwreck/dbase/cinms/winfieldscott1.html>

Tennessee: <http://www.cinms.nos.noaa.gov/shipwreck/dbase/mbnms/tennessee.html>

At the Society for Historical Archaeology conference three of Schwemmer's underwater photographs were entered into competition and judged by the Advisory Council on Underwater Archaeology. Schwemmer received first place for his photograph of the submersible *Delta* searching for shipwrecks at CINMS, and second place for a photograph of the shipwreck *USS Macaw* at Midway Atoll, located in the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve. These images will be featured on that council's website for professional archaeologists and the public to view.

Schwemmer traveled to San Francisco to meet with staff of the Gulf of the Farallones National Marine Sanctuary, then to Monterey to meet with west coast regional staff. Schwemmer also worked with Jennifer Stock of Cordell Bank National Marine Sanctuary to submit a Preserve America grant application for an oral interview project involving Cordell Bank Expedition divers in partnership with the National Park Service. To learn more about NOAA's role in the Preserve America initiative visit:

<http://www.preserveamerica.noaa.gov/>.



John Brooks filming *USS Macaw* at Midway Atoll (top). *Delta* submersible off Channel Islands (bottom). Photos: Robert Schwemmer.



Bruce Terrell (left) and John Broadwater (right).
Photo: Robert Schwemmer.

NMSP National Maritime Heritage Program

In February, Schwemmer participated in the Maritime Heritage Program Council and general meetings at NMSP headquarters in Silver Spring, Maryland, and attended the opening of the NOAA's Ark exhibit during NOAA Heritage Week. Schwemmer presented framed photographs on behalf of members of the Maritime Heritage Program to Dan Basta, John Broadwater and Bruce Terrell in appreciation for their outstanding dedication, and commitment to excellence in developing a world class program. During his stay in Silver Spring Schwemmer also conducted research at the NOAA Central Library.

The NMSP National Maritime Heritage Program recently launched its new web site that features the archaeological and cultural programs at CINMS and National Maritime Heritage Program expeditions conducted at other national marine sanctuaries. The latest addition includes the *USS Macon* Expedition for the Monterey Bay National

Marine Sanctuary, which you can learn more about by visiting the following URL:

<http://sanctuaries.noaa.gov/maritime/expeditions/ussmacon.html>.

MANAGEMENT PLAN

Management Plan Review Process Update

The sanctuary's Draft Management Plan and Draft Environmental Impact Statement (DMP/DEIS) are now very close to receiving final NOAA and Department of Commerce clearance for public release.

Recent advances include submittal for review to the Office of Management and Budget, with a response expected back in mid-March. Also, briefings have been completed with new National Ocean Service leadership and NOAA policy reviewers. At this stage CINMS staff expect final agency clearance to be granted this spring, but cannot predict with certainty if and when that will occur. Dates for public hearings have not yet been set but should be scheduled soon. Plans call for holding one hearing in Ventura and one in Santa Barbara, in addition to two Sanctuary Advisory Council (Advisory Council) meetings that will focus on understanding and commenting on the plan.

At the September 23, 2005 Advisory Council meeting CINMS staff provided an overview of the management plan revision process and DMP/DEIS documents, including explanations of the project's status, summary of proposed action plans, summary of proposed regulatory changes, next steps in the process, and discussion of the role of the Advisory Council and Working Groups during the public comment period. Notes from this presentation are available here:

<http://www.channelislands.noaa.gov/sac/minutes.html>.

Biogeography Study

The biogeography study, *Biogeographic Assessment of the Channel Islands National Marine Sanctuary and Surrounding Areas*, is now complete and the final report has been printed. A data DVD is now being produced. It is expected to be completed in March. Advisory Council members will receive notice when the final printed report and DVD arrives, which will also be available by web site download. For a summary of the study and its findings, refer to the Biogeography Team's presentation that was provided at the May 20, 2005 Advisory Council meeting, available here:

http://ccma.nos.noaa.gov/ecosystems/sanctuaries/chanisl_nms.html.

Staff Update

Training

In February, Sarah MacWilliams, CINMS Management Plan Specialist, attended a one-day UCLA Extension seminar entitled *Managing EIRs and EISs: Strategies For Success*. The seminar was

CHANNEL ISLANDS: STORIES FROM THE PAST

Fifty years ago this month on March 12, 1956, *Los Angeles Times* writer Chuck Hillinger reports on military occupation of and scientific intrigue with Santa Rosa Island [in-part]. The featured article was entitled, "SANTA ROSA ISLE'S MAIN JOB: DEFENSE, But Remains of 29,650 Year-Old Mammoths Bring Land to Attention of Scientists, Too." Excerpts from the article follow.

"Santa Rosa Island, Cattle kingdom and outpost of national defense, this giant sting-ray-shaped island – second largest of the Channel group – is a focal point of world-wide scientific attention. Atomic radioactive carbon 14 tests recently conducted at the University of Columbia on dwarf mammoth bones unearthed here indicated that the remains are the earliest dated evidence of man's presence in the Western Hemisphere. The burned dwarf mammoth bones were pulled apart in such a fashion that scientist determined they were barbecued and eaten by humans on the islands 29,650 years ago."

"Navy Lifeline-Three times weekly, regularly scheduled boats make the run to the Air Force's 669th Aircraft Control and Warning Squadron base near South Point on the island. Air Force men load supplies and board the Navy PT boat at a quiet Port Hueneme quay early in the morning. No sailors, these men of the skies huddle together secured to their seats with safety belts, bundied in overcoats and wrapped even more snugly in Mae Wests as they cruise to the island base.... The PTs sing a busy whirring song as they cruise through choppy channel waters at high speeds, leaving a wake like a four-lane highway. Schools of seals playfully leap in and out of the water. Whales surface, spout and disappear. Enormous mud-hens fly from their rocky ledges on Santa Cruz....An amazing feature of the base is the manner of getting to it, as the only contact with Air Force facility and civilization is a half-inch cable with a seven-foot high

cage at the end of it. To board the island, the PT idles on six-foot-high seas wave crests, adjacent to and 70 feet below the end of the Air Force pier. A half-dozen Air Force men entered the cage. Seconds later they were swung up above the PT, out over the boiling sea and then safely onto the pier."



The article goes on to address living conditions and the early warning function of the air detection center at Santa Rosa Island. For a complete copy of the article (PDF format) contact Sarah MacWilliams at Sarah.MacWilliams@noaa.gov.

designed to teach participants how to tackle the day-to-day practical issues and challenges involved in managing preparation of Environmental Impact Reports (EIRs) and Environmental Impact Statements (EISs) by providing participants with management tools that can help projects run more smoothly, ensure successful products, and avoid legal challenges. Highlights of the seminar included tips on working with consultants, and meeting a former Santa Barbara County employee who was involved in the original CINMS designation process. MacWilliams will share information provided at the seminar with other staff involved in EIS development at CINMS.



NOAA 2006 Hollings Scholar Internship

In February CINMS learned that the NOAA Ernest F. Hollings (Hollings) Scholarship Program agreed to place two highly qualified Hollings Scholars (Scholars) in the sanctuary's Policy, Planning and Resource Protection Internship opportunity. The Hollings Scholarship Program is designed to: (1) increase undergraduate training in oceanic and atmospheric science, research, technology, and education, and foster multidisciplinary training opportunities; (2) increase public understanding and support for stewardship of the ocean and atmosphere, and improve environmental literacy; (3) recruit and prepare students for public service careers with NOAA and other natural resource and science agencies at the federal, state, and local levels of government; and (4) recruit and prepare students for careers as teachers and educators in oceanic and atmospheric science, and to improve scientific and environmental education in the United States. In January CINMS management plan, Advisory Council, and Resource Protection staff developed a joint internship description and request for Scholars. After receiving inquiries from several interested Scholars, sanctuary staff requested that the Hollings Scholarship Program place two Scholars in this internship. The Scholars will have their initial site visit in March and their ten-week sanctuary internship will begin in early June. Look for more information about our incoming Hollings Scholars in a future issue of this report! To learn more about the Hollings Scholarship Program visit the program's web site at: <http://www.orau.gov/noaa/HollingsScholarship/>.

RESEARCH AND MONITORING

Research and Monitoring Activities

Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO)

PISCO conducted research and monitoring on board the R/V *Shearwater* from January 30th through February 3rd. Researchers spent three days conducting SCUBA surveys at Santa Cruz Island and one day at Anacapa Island. Divers conducted visual surveys of fish species along multiple, 30-meter transects in the kelp forest. Researchers are able to cover multiple sections of each reef visited, and survey onshore and offshore habitat.

PISCO is a large-scale marine research program that focuses on understanding the nearshore ecosystems of the U.S. West Coast and has been a crucial part of the marine reserves monitoring program in the sanctuary for many years. Researchers monitor species abundance and oceanographic conditions both inside and outside marine reserves. For more information please visit: <http://www.piscoweb.org/>.

Plumes & Blooms (PnB)

On January 24, PnB began its 10th year of optical data collection. A second cruise was conducted on February 21st. PnB cruises are conducted on board the R/V *Shearwater* approximately every three weeks, and data are collected along a seven-station transect from Santa Rosa platform to Goleta Point. The main goal of the PnB project is to develop and optimize algorithms that will be used to relate the measurements taken from satellites to in-situ ocean properties like chlorophyll content, and organic and inorganic particles. Each PnB cruise measures physical characteristics of the water, including parameters that describe color and light in the water as well as temperature, pressure, and density, among many

others. Recently added to the program are aerosol optical thickness observations, along with the traditional PnB sampling program, to assess the influence of the amount of aerosols on ocean color modeling. The PnB data set has been used extensively in papers and publications and has enabled several graduate students to complete advanced degrees. For more information, please visit: <http://www.icess.ucsb.edu/PnB/Overview.html>.

Effects of Domoic Acid on California Sea Lions: CINC Volunteers Assist With Study

CINC volunteers are conducting monthly plankton tows in support of a collaborative effort between The Marine Mammal Center, California Department of Health Services, and the University of California Santa Cruz. The tows are part of a study looking at the effects of domoic acid on California sea lions. The Marine Mammal Center rehabilitates central and northern California pinnipeds (seals and sea lions), and in recent years a large number of rehabilitated animals have been California sea lions suffering from domoic acid toxicity. Domoic acid is a natural neurotoxin, produced by the diatom *Pseudo-nitzschia*, which can cause seizures and other neurological symptoms in sea lions. The CINC tows will focus on a gap in the study in offshore waters and will be conducted during PnB research cruises on board the R/V *Shearwater*.

SANCTUARY ADVISORY COUNCIL

2006 Sanctuary Advisory Council Work Plan

At its January meeting the Advisory Council adopted an ambitious work plan for 2006. The work plan will be posted on line at http://www.channelislands.noaa.gov/sac/report_doc.html, and is summarized on the next page of this report.

Working Group News

Chumash Community Working Group Holds First Public Meeting

The first public meeting of the Advisory Council's Chumash Community Working Group was held on February 19th in Santa Ynez, California. Approximately 15 individuals from the Chumash community attended the meeting. Chris Mobley, Sanctuary Superintendent, and Michael Murray, Advisory Council Coordinator, provided a sanctuary orientation presentation, and participated in thoughtful discussions about what type of projects the new working group might engage in. There was much interest expressed in finding ways to connect the Chumash community advisors with indigenous peoples working in partnership with other national marine sanctuaries. The working group plans to meet again on April 9th.

Sanctuary Advisory Council Support Staff Changes

Since 2004, Jacklyn Kelly has provided top notch support to the Advisory Council, working tirelessly to pull together hundreds of details that make the whole process work. Kelly recently landed a great job with The Nature Conservancy (as Hospitality Manager for the Santa Cruz Island Preserve), and as such is moving on from CINMS, but not going too far away. We're sad to lose such a valuable team player, but excited for her new future. Please join me in thanking Kelly and wishing her well. As she transitions out of the sanctuary office over the next few months you can still reach Kelly at: jacklyn.kelly@noaa.gov, or 805-966-7107 x371, and we'll probably see her at a future Advisory Council meeting.

Looking ahead, please welcome Danielle (Dani) Lipski to our Advisory Council team. Lipski has been a part time Research Assistant here at CINMS since last October, and will now also help out with some Advisory Council support duties. You'll meet her soon, and you can read her staff profile on line here: http://www.channelislands.noaa.gov/drop_down/person.html. The Sanctuary Manager's Report profiled Lipski in Vol. 3 No. 5. (Back issues of the Manager's Report are available upon request to sarah.macwilliams@noaa.gov.)

**Channel Islands National Marine Sanctuary
Sanctuary Advisory Council
Summary of 2006 Annual Work Plan**

Complete Work Plan will be posted at: http://www.channelislands.noaa.gov/sac/report_doc.html

ENERGY PROJECTS

- Liquefied Natural Gas (LNG) Offshore Terminals – track status of proposals for Santa Barbara Channel region, invite expert speakers
- Offshore Oil & Gas Activities – receive NMSP response to Council's November 2005 resolution, track outer continental shelf oil and gas inventory activities called for in the Energy Policy Act of 2005
- Emerging Energy Issues – receive information and/or presentations from expert speakers, track development of alternative energy projects proposed for Santa Barbara Channel region

FISHERIES & AQUACULTURE

- Increase Sanctuary Education and Outreach on Fishing within CINMS – receive educational information and/or presentations
- Increase Understanding of Pacific Fishery Management Council (PFMC) – attend PFMC meeting, invite PFMC to Council meeting
- Increase Understanding of Marine Life Management Act (MLMA) – receive educational information and/or presentations
- Increase Understanding of State and Federal Aquaculture Legislation and Policy – receive information and/or presentations
- Increase Knowledge About Offshore Aquaculture and the Proposed Grace Mariculture Project (or any similar locally proposed projects)
- Develop an Aquaculture Report and Recommendations – support Conservation Working Group's proposal to develop an aquaculture report and recommendations; review, comment on, and consider adopting the report and recommendations.

MANAGEMENT PLAN

- Release of Draft Environmental Impact Statement and Draft Management Plan (DEIS/DMP) – receive presentation from sanctuary staff, provide comments on DEIS/DMP, assist in raising public awareness and understanding of the DEIS/DMP.
- Release of Final Environmental Impact Statement and Final Management Plan (FEIS/FMP) - receive presentation from sanctuary staff, assist in raising public awareness and understanding of the FEIS/FMP.
- Development of Supplemental EIS (SEIS) to Consider Sanctuary Boundary Redefinition – receive educational background presentations

MARINE ACOUSTICS

- CINMS Response to Advisory Council Recommendations on Marine Acoustics – receive reports on progress toward implementing recommendations; ask Research Activities Panel and/or other invited experts for advice on addressing science-based recommendations; receive educational information and/or presentations.

MARINE PROTECTED AREAS (MPAS)

- Environmental Review Process for Consideration of Establishing Additional MPAs within CINMS – receive progress reports on development of the Draft Environmental Impact Statement (DEIS), provide comments and assist with raising public awareness and understanding of the DEIS once it is publicly released.
- Biological monitoring program oversight and evaluation of existing Channel Islands MPAs – receive periodic reports on and ask Research Activities Panel to review monitoring program implementation and results.
- Socio-economic monitoring program oversight and evaluation of existing Channel Islands MPAs – receive periodic reports on and ask Research Activities Panel to review monitoring program implementation and results.
- Increase Sanctuary Education and Outreach on MPAs within CINMS – provide advice on sanctuary-related MPA facts for use in educational products, work with Sanctuary Education Team (SET) on further development of MPA education/outreach products.
- Increase Understanding of Marine Life Protection Act (MLPA) – receive educational information and/or presentations.
- Tribal MPAs - Chumash Community Working Group to explore the topic of "Tribal MPAs" and discuss with the Council.

WATER QUALITY

- CINMS Response to Advisory Council Recommendations on Water Quality – receive reports on progress made toward implementing recommendations, receive educational presentations from staff (or invited partners) on Sanctuary water quality topics.
- CINMS Water Quality Program Development - convene a Water Quality Working Group (WQWG); work with CINMS staff, WQWG, and Donna Meyers on issue characterization and assessment, gap analysis, developing water quality program goals and objectives, management actions, and implementation mechanisms.
- Increase Knowledge About Domoic Acid / Red Tide – hear from experts to gain an understanding of sources and effects of domoic acid in the marine environment.

OTHER

- Agency Updates and Reports – receive brief reports from agency representatives about topics of interest to Council members.
- Artificial Reefs – receive educational information and/or presentations from invited experts
- Biogeography Study of CINMS and Surrounding Waters (complete) – receive additional presentation, if requested.
- Chumash Education and Outreach – convene Chumash Community Working Group on regular basis and report to Council, provide educational information to Council and sanctuary staff for general information and for incorporation into sanctuary programs, discuss government to government relations with sanctuary staff, see also item on tribal MPAs.
- Long Beach Aquarium of the Pacific Field Trip (pending an invitation), and discussion about continued development of a partnership between the NMSP/CINMS and the Aquarium.
- Non-Native Species – receive educational information and/or presentations from invited experts
- Ocean Protection Council – receive educational information and/or presentations
- Advisory Council Retreat – optional retreat in fall 2006
- Sanctuary Education Team (SET) Outreach Presentations about the Sanctuary – endorse and utilize presentations for outreach purposes
- Sanctuary-Wide Integrated Monitoring (SWIM) – receive educational information and/or presentations



RESOURCE PROTECTION

Marine Reserves Process

Development of a Draft Environmental Impact Statement for Federal Marine Reserves

Sanctuary staff continue to develop a draft Environmental Impact Statement (DEIS) for marine reserves in CINMS. Release of the DEIS for public review is expected in spring of 2006.

Graduate Student Group Projects

Sean Hastings, CINMS Resource Protection Coordinator, is the CINMS liaison for two graduate student projects of the UCSB Donald Bren School of Environmental Science and Management (Bren School). On April 19th the students will present the results of their projects at the 2006 annual Master's Group Project Final Presentations (for more information visit this web site: http://www.bren.ucsb.edu/news/events/gp_pres_info.html). More information about these two particular projects follows.

Marine Protected Areas Along California's Central Coast: Multi-Criteria Analysis of Network

This project involved conducting a multi-criteria analysis of marine protected area network design along the central coast of California. Using a numerical optimization tool called MARXAN, students incorporated biophysical, socioeconomic, and compliance/enforcement criteria into an analysis in accordance with the goals, objectives, and provisions of California's Marine Life Protection Act. Sean Hastings is a member of the project's external review panel, and has also provided assistance and information throughout the project. To learn more visit the project web site at: <http://fiesta.bren.ucsb.edu/%7Emlpa/>.

*Estimating Recreational Harvest of *Panulirus interruptus* in the Santa Barbara Channel and Northern Channel Islands*

This project aims at establishing an easily adaptable methodology to collect information regarding recreational spiny lobster fisheries, with the goal of beginning to derive estimates of the total recreational harvest of *P. interruptus* in the Santa Barbara Channel and Channel Islands. CINMS is the client for this project. To learn more visit the project website: <http://fiesta.bren.ucsb.edu/%7E Espiny/>.

VESSEL AND AIRCRAFT OPERATIONS

Aircraft Maintenance and Operations

During the current reporting period the CINMS flight crew completed ten flights for a total of 25.3 flight hours, including both sanctuary aerial monitoring surveys and marine reserve enforcement flights around all five islands in the sanctuary. Highlights of the flights included sightings of 23 gray whales, with one flight yielding 18 of the 23 total gray whale sightings plus sightings of 60 Risso's dolphins.

WEB SITE (<http://channelislands.noaa.gov>)

Recent Updates

Visit the web pages listed below to see recently updated sections of the CINMS web site.

The Marine Reserves section of the web site now offers the socioeconomic impact analysis of marine reserve alternatives for the CINMS at: <http://channelislands.noaa.gov/marineres/mrec.html>.

Check out the Education section for MERITO info at:
http://channelislands.noaa.gov/edu/edu_act1.html.

For information about the current status of the Management Plan go to
http://channelislands.noaa.gov/manplan/cur_status.html.

The Marine Mammal Sightings Database now hosts 50 new photos at:
<http://www.cisanctuary.org/mammals>.

Don't forget to check out our calendar of events to find out what's
happening locally:
<http://channelislands.noaa.gov/focus/calendar.html>.



New Features

In addition to weekly updates, our main focus has been the continuing development of several web pages within the CINMS web site. A 'West Coast' regional web address www.westcoastsanctuaries.noaa.gov has been requested to host the 'West Coast Shipwreck' database which currently resides within the CINMS site. A Marine Reserves Educational mini-site and a MERITO information page within the education section are all in development for spring 2006.

Upcoming Modifications

Edits to the Advisory Council section, including Conservation Working Group updates, the addition of Advisory Council member photos and bios on line, and an Advisory Council issues tracking web site are on deck for April - May 2006.

*Please take a few moments to peruse the site. Your feedback is greatly appreciated.
Comments and suggestions can be sent to amy.cale@noaa.gov.*



NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) AND NATIONAL MARINE SANCTUARY PROGRAM (NMSP) NEWS



John ("Jack") H. Dunnigan Takes the Helm as the Assistant Administrator for the National Ocean Service

Mr. Dunnigan joined the National Ocean Service (NOS) as the Assistant Administrator in January, 2006. Mr. Dunnigan has been associated with NOAA throughout his career, beginning as a NOAA Congressional Affairs intern in 1972. Since 2002, he has overseen NOAA's efforts promoting fishery conservation and management programs aimed at achieving the optimum sustainable yield from U.S. fisheries on an annual basis. He has played a key role in guiding NOAA policy under the Magnuson-Stevens Fishery Conservation and Management Act. While serving as director of the Office of Sustainable Fisheries, Dunnigan also served as director of the NOAA Ecosystem Goal Team, one of the four mission goals in NOAA. He has led efforts to develop long-term, multi-year policy direction as NOAA works to implement an ecosystem approach to its management of the nation's marine resources. Mr. Dunnigan's complete biography is available on line at: http://www.oceanservice.noaa.gov/about/supp_bio.html.

Annual NMSP and NOS Accomplishments Report Released

The National Marine Sanctuary Program released a report on March 1st on the state of America's national marine sanctuaries. The report highlights efforts by NOAA, partner organizations and communities to protect, manage and explore the 150,000 square miles of ocean and Great Lakes waters within NOAA's 13 national marine sanctuaries and one coral reef ecosystem reserve. Whale rescues and the discovery of new marine species and historic shipwrecks are among the 80 accomplishments noted in the 2005 State of the Sanctuaries report. An additional 40 accomplishments are featured on line. The report is available on the NMSP web site: <http://sanctuaries.noaa.gov/sos2005/>. The 2005 NOS

Accomplishments Report is also now available online. Please visit the NOS website at <http://oceanservice.noaa.gov> and look in the "Of Special Note" section to view an electronic version of the report.

Ocean Communicators Workshop 2006 - Groundbreaking Partnerships for Ocean Literacy and Awareness

On Friday, February 10th, NOAA's NMSP, in partnership with the State of California Resources Agency, held *Ocean Communicators Workshop 2006* at the California Academy of Sciences in San Francisco. The workshop brought together 81 communications specialists from ocean-related agencies, organizations, and businesses for a common goal of California public ocean awareness. Results from the workshop include the expansion of California Ocean Communicators Alliance, "*Creating a strong voice for the Ocean in California*," statewide, and the steering committee was expanded. Participants agreed on common ocean messages and recommended elements for a statewide California Public Ocean Awareness Campaign to be launched at the California and the World Ocean Conference, to be held September 17-20, 2006 in Long Beach. For more information, contact Columbine.Culberg@noaa.gov.

NCCOS' Biogeographic Assessments Help Protect California's Marine Life

Biogeographic assessments performed by the National Centers for Coastal Ocean Science (NCCOS) are proving valuable in implementing California's Marine Life Protection Act and managing the west coast national marine sanctuaries. The assessments are providing important background information for regional profiles and analysis of proposed alternatives for marine protected areas in CINMS. Phase I of the North/Central California assessment was completed in 2003, and Phase II was completed in March 2006. For more information visit: <http://ccma.nos.noaa.gov/ecosystems/sanctuaries/>.



Some of the exhibits featured at NOAA's Ark in Silver Spring. Photos: Robert Schwemmer.

Treasures of NOAA's Ark Arrive at Second Annual NOAA Heritage Week

Artifacts representing nearly 200 years of science, service and stewardship by NOAA and its predecessor agencies were on public display during the second annual NOAA Heritage Week, February 11-16 at the Science Center. This year's theme was "Pioneers: People and Technology." The exhibit featured groundbreaking NOAA pioneers and technologies that have saved

lives, promoted commerce, and expanded people's knowledge of the land, sea, and sky. Experts explained the history and uses of items on display, including maps and charts from the old U.S. Weather Bureau, early scientific instruments from the U.S. Bureau of Fisheries (now NOAA Fisheries), and artifacts from the U.S. Coast and Geodetic Survey, founded in 1807. The exhibit also featured recreations of an undersea lab and weather forecast office, and professional conservators who helped people preserve their personal treasures and heirlooms. For more information visit:

preserveamerica.noaa.gov.

MPA Center Reaches Out to Indian Tribes and Native Alaskans

The Marine Protected Areas (MPA) Center is sending letters to coastal, Great Lakes, and Native Alaskan tribal governments to inform them about the development of the framework for the national system and encourage them to provide input. Executive Order 13158 calls on federal agencies to consult with tribes, as well as other public and private stakeholders, in the development of the national system of MPAs. Tribes are also being invited to participate in the marine managed areas inventory and the west coast pilot project (in California, Oregon, and Washington), which will develop the scientific and technical tools and approaches to assess the current protection provided by established MPAs, and identify potential gaps in protection for significant natural and cultural resources.

MPA Center Leads NOAA Participation in Workshop for North American MPA Network

As country lead for development of the North American MPA Network, the MPA Center managed U.S. participation in a joint U.S./Canada/Mexico MPA monitoring workshop from February 21st – 23rd in Ventura, California. Hosted by the National Park Service, the workshop was sponsored and primarily funded by the Commission on Environmental Cooperation, an environmental side agreement of NAFTA. U.S. participants included representatives from the MPA Center, NMSP, National Estuarine Research Reserve System, NOS's International Program Office, National Park Service, U.S. Fish and Wildlife Service, and nongovernmental organizations. The goal of the workshop was to synthesize information about the three nations' MPA monitoring programs and to begin developing a Pacific MPA monitoring network to be implemented through "sister" sites in each nation.

Florida Keys National Marine Sanctuary Installs Exterior PVC Monofilament Recycling Bin

An exterior PVC monofilament recycling bin has been installed at Key West's Garrison Bight Municipal Marina. Located between the facility's busy boat ramp and famous charter boat row, the "periscope" style bin attracted enough line-recyclers that the shipping container has been filled with 22 pounds of recovered line. The postage-paid container of line was shipped to Iowa where more than seven million miles of monofilament have already been recycled into items such as tackle boxes and fresh water fish habitats.

NOAA and U.S. Army Discuss Chemical Munitions in U.S. Waters

On January 10th, personnel from the NMSP, Office of Coast Survey, Office of Response and Restoration, National Marine Fisheries Service, NOAA Restoration Center, and NOAA Public Affairs met with representatives from the U.S. Army's Office of the Deputy Assistant Secretary for Environment, Safety and Occupational Health to discuss chemical munitions in U.S. waters. NOAA presented general information about its trust resources and scientific expertise. The Army is interested in obtaining historical and current information from nautical charts, the U.S. Coast Pilot, and the Automated Wreck and Obstruction Information System (AWOIS); data from the Resources and Undersea Threats (RUST) database; recommendations on appropriate oceanographic, bathymetric, and archaeological survey and assessment methods; and general information on the locations of NOAA trust resources and related activities. The Army also expressed interest in participating in a NOAA-sponsored workshop on underwater corrosion, and using NOAA's broad constituent networks to inform the public about how to handle munitions at sea.

**Visit this exhibit
celebrating the
Channel Islands!**

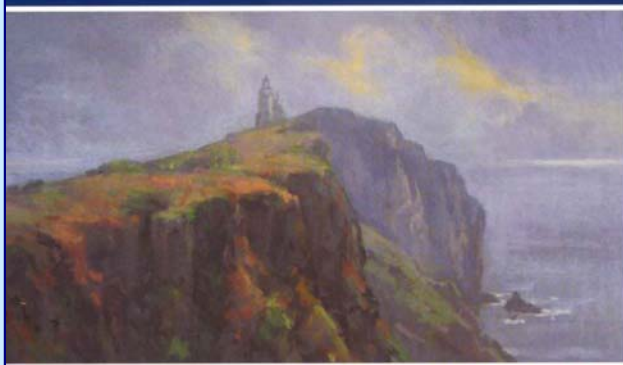
**Ventura County
Museum of History
& Art**

**100 E. Main St.
Downtown Ventura
(805) 653-0323**

**Hours: Tues. – Sun.
10 a.m. – 5 p.m.
Admission \$4**

www.venturamuseum.org

ISLAND PASSAGES: *Artists Celebrate the Channel Islands*



Anacapa Dawn, 2005, Glenna Hartmann. Pastel, 6 x 9 in. Collection of the Artist.

**March 4 - May 29, 2006
at the Ventura County Museum
of History & Art**

Greg Bressani	CB Claiborne
Roger Conrad	Wm. B. Dewey
Sonya Fairbanks	David C. Gallup
Isabel Gomes	Shelly Johnson
Glenna Hartmann	Patricia Hedrick
Dorothy Hunter	Ray Hunter
Connie Jenkins	Gerri Johnson-McMillin
Jim Knowlton	Laura Lynch
Tom McMillin	Paula Odor
Susan Petty	Cathy Quiel
Roxie Ray-Bordelon	Jack Reilly
Mette Beyer Rubin	Pamela Kendall Schiffer
Richard Schloss	Sylvia Torres
Kate Yarbrough	

THREE-MONTH CHANNEL ISLANDS NATIONAL MARINE SANCTUARY CALENDAR

MARCH	
Mar. 1-5	Fred Hall Fishing Show, Long Beach
Mar. 2	Monte Vista School Science Night, Goleta
Mar. 3	California Marine Mammal Stranding Network Conference, San Pedro
Mar. 3	Island Passages Art Exhibit Reception
Mar. 4	Santa Barbara Whale Festival
Mar. 4 - May. 29	Island Passages: Artists Celebrate the Channel Islands Ventura County Museum of History and Art, 100 E. Main St., Ventura, CA (805) 653-0323 www.venturamuseum.org
Mar. 5	Channel Islands Harbor Celebration of Whales, Oxnard
Mar. 12	Pt. Mugu Whale Festival, Malibu
Mar. 14, 15	<i>From Shore to Sea Lecture Series:</i> Greg Sanders, U.S. Fish and Wildlife Service <i>Southern Sea Otter Translocation Status</i> Tuesday: 7:00 pm Chase Palm Park Center, 236 E. Cabrillo Blvd., Santa Barbara Wednesday: 7:00 pm Channel Islands National Park Visitor Center (1901 Spinnaker Drive in Ventura)
Mar. 16	Las Colinas Middle School Science Fair, Camarillo
Mar. 18	Island Focus Photography Exhibit, Ventura
Mar. 19	Park & Sanctuary Free Family Day, Ventura County Museum of Art & History, Ventura
Mar. 22	<i>Sanctuary Advisory Council Meeting*</i> Sheraton Four Points Hotel (1050 Schooner Drive, Ventura Harbor) An agenda, directions and more information will be posted at: www.channelislands.noaa.gov/sac/announcement.html *This will be an afternoon and evening meeting.
APRIL	
Mar. 4 - May. 29	Island Passages: Artists Celebrate the Channel Islands Ventura County Museum of History and Art, 100 E. Main St., Ventura, CA (805) 653-0323 www.venturamuseum.org
Apr. 2	Earth Day, Oxnard
Apr. 5	Ventura County Science Fair Expo
Apr. 8	Museum Gone Wet & Wild Day, Ventura County Museum of Art & History, Ventura
Apr. 11, 12	<i>From Shore to Sea Lecture Series:</i> Josh Adams, U.S. Geological Survey <i>Seabirds of the Channel Islands and Santa Barbara Channel</i> Tuesday: 7:00 pm Chase Palm Park Center, 236 E. Cabrillo Blvd., Santa Barbara Wednesday: 7:00 pm Channel Islands National Park Visitor Center (1901 Spinnaker Drive in Ventura)
Apr. 21	Earth Day, California State University, Channel Islands
Apr. 22	Earth Day, Cabrillo Marine Aquarium
Apr. 22-23	Earth Day, Aquarium of the Pacific Long Beach
Apr. 23	Earth Day, Santa Barbara
Apr. 26-30	Santa Barbara Fair & Expo
Apr. 29-30	Sea Fest, Santa Barbara Maritime Museum
MAY	
Mar. 4 - May. 29	Island Passages: Artists Celebrate the Channel Islands Ventura County Museum of History and Art, 100 E. Main St., Ventura, CA (805) 653-0323 www.venturamuseum.org
May 15	<i>Sanctuary Advisory Council Meeting</i> This meeting will be held in Santa Barbara. Please check our web site to confirm the date, and for the time, agenda, directions, and more information www.channelislands.noaa.gov/sac/announcement.html

Learn More About Your Sanctuary

The Sanctuary Manager's Report is produced bi-monthly by the Channel Islands National Marine Sanctuary in conjunction with Sanctuary Advisory Council meetings. To learn more about the sanctuary please visit our web site at: <http://www.channelislands.noaa.gov/>.

To learn more about the Sanctuary Advisory Council please visit:
<http://www.channelislands.noaa.gov/sac/main.html>.

The National Marine Sanctuary Program

The Channel Islands National Marine Sanctuary is one of 13 marine sanctuaries in the National Marine Sanctuary Program. This program was established under the National Marine Sanctuaries Act of 1972 which authorizes the Secretary of Commerce to designate as national marine sanctuaries areas of the marine environment or Great Lakes with special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archeological, educational, or aesthetic qualities. Visit the NMSP web site at: <http://www.sanctuaries.nos.noaa.gov/>

Channel Islands National Park

To learn about Channel Islands National Park visit their web site at: <http://www.nps.gov/chis/homepage.htm>.

GET INVOLVED AND STAY INFORMED!

To learn how to get involved in the sanctuary visit:
<http://www.channelislands.noaa.gov/focus/involved.html>

Sign up for the CINMS listserv to receive email notices about upcoming sanctuary events, and public meetings of the Sanctuary Advisory Council and its working groups:
<http://www.channelislands.noaa.gov/focus/list.html>

CINMS Staff

Christopher Mobley – Sanctuary Superintendent
Todd Jacobs – Deputy Superintendent
Shauna Bingham – Volunteer and Outreach Coordinator
Julie Bursek – Education Coordinator, Oxnard Office
Amy Cale – Web Developer
Jonna Engel – Marine Reserves Outreach Specialist
Sarah Fangman – Research Coordinator
Laura Francis – Education Coordinator, Santa Barbara Office
Clare Fritzsche – CINC Volunteer Administrative Assistant
Sean Hastings – Resource Protection Coordinator
LT Julie V. Helmers – Executive Officer
Lorri Herr – Program Support Specialist
Jacklyn Kelly – Sanctuary Advisory Council and Event Specialist
Rochelle King – Administration Specialist
Charles Lara – Deckhand
Dani Lipski – Research Assistant
Rocio Lozano de Knowlton – MERITO Community Liaison
Sarah MacWilliams – Management Plan Specialist
Michael Murray – Advisory Council and Management Plan Coordinator
Luman Moody – Vessel Captain
LTJG Kate Peet – Operations Officer
Tina Reed – Education and Outreach Administrator
Robert Schwemmer – Regional Maritime Heritage Coordinator
Natalie Senyk – Scientific Advisor
Terrence Shinn – Vessel Captain
Ben Waltenberger – Physical Scientist
Rebecca Young – Database Coordinator

CINMS Interns

Allison Chan – Resource Protection Intern
Daryl Austin – Education Intern

NMSP West Coast Staff

Columbine Culberg – Ocean Etiquette Program Manager/Liaison to Aquarium of the Pacific
Claire Johnson – West Coast Education Liaison
Sarah Marquis – West Coast Media Coordinator

Channel Islands Marine Sanctuary Foundation

Anna Chouteau – Executive Director

- CONTACT INFORMATION -

Channel Islands National Marine Sanctuary

Santa Barbara Office
Santa Barbara Harbor
113 Harbor Way, Suite 150
Santa Barbara, California
93109
Phone: (805) 966-7107
Fax: (805) 568-1582

Oxnard Office
Channel Islands Harbor
3600 S. Harbor Blvd., Suite 111
Oxnard, California
93035
Phone: (805) 382-6149
Fax: (805) 382-9791

